

REMARKS/ARGUMENTS

Claims 1-9 and 12-20 are pending in the present application. Claims 1-9 and 12-14 are rejected in the Office action of October 3, 2003. Claims 15-20 were withdrawn from consideration in the Office action of October 3, 2003. Claims 15-20 are hereby canceled without prejudice or disclaimer. Applicants reserve the right to file a continuation application with respect to these claims.

Claims 1-9 and 12-14 are rejected under 35 U.S.C. 103(a) as unpatentable over Stoltz in view of Fennema and Patel, *et al.* Applicants respectfully request reconsideration of these claims in light of the remarks made herein.

Applicants' claimed invention solves a problem that is not contemplated in the prior art, *i.e.*, how to deliver water soluble flavor enhancers to foods *via* an oil phase. By preparing a flavor enhancing oil, consumers will be able to enhance the flavor of, as opposed to actually ***flavoring***, the food they prepare, in a way that has not been available thus far--by using an oil that has the flavor enhancers dispersed therein. Specifically, Applicants claim a flavor enhancing oil comprising at least one edible oil, silicon dioxide, and at least one flavor enhancer, wherein the flavor enhancer is dispersed throughout the oil. Applicants respectfully assert that no combination of the cited prior art teaches or suggests any way to uniformly disperse water-soluble flavor enhancers in a non-aqueous medium.

Applicants teach within their specification, "[water soluble flavor enhancers] are commonly available in the form of powders which can be solubilized in food substances having an aqueous phase." Specification, page 1, lines 32-33. Applicants then point out that water soluble flavor enhancers can be added to water-based foods, such as soups, wherein the flavor enhancers are dispersed throughout. Specification, page 1, lines 33-35. However, the flavor enhancement provided by the claimed flavor enhancers when dissolved in aqueous solutions, such as soup, is limited by the temperature at which aqueous foods are cooked, *i.e.*, 100°C. Specification, pages 1-2, bridging sentence. Moreover, at temperatures higher than can be achieved when cooking water-based foods in which the flavor enhancers can be dissolved, the flavor enhancers decompose, and provide additional flavor enhancement beyond that which can

be achieved at 100°C. Specification, page 1, lines 36-37. Applicants state the problem their invention solves: “the delivery of water soluble flavor enhancers via frying and grilling operations, and the enhanced flavor displays obtained at higher cooking temperatures, have not been practical.” Specification, page 2, lines 7-8.

This is similar to the situation of claim 5 of In re Kerkhoven, 205 USPQ 1069, 1071 (CCPA 1980). The applicant, Kerkhoven, had invented a new process for making detergents mixed active detergents. The problem that Kerkhoven wanted to solve was making a mixed active detergent that had good flow characteristics. Kerkhoven’s method involved simultaneously spray-drying two different detergent compositions, one primarily anionic, the other primarily nonionic, through two separate nozzles in a single spray-drying tower. 205 USPQ 1073. The cited prior art was a combination of a reference that taught a method for making a mixed active detergent by spray drying through a single nozzle along with the use of a phosphate builder, and a reference that taught the use of multiple nozzles for the production of multicolored detergents. The Examiner in Kerkhoven asserted that:

Appellant has neither argued nor demonstrated that this method of simultaneous spray drying in a single tower provides any unexpected results. Further, this process would be suggested by the teachings in Tofflemire and appellant’s admission in the sentence bridging pages 27 and 28 of his brief that “given the long-standing practice of spray drying with a multiplicity of nozzles, the *possibility* of introducing separate streams to any or all of these separate novels would be obvious to anyone of ordinary skill in the art. [Emphasis in original.] In re Kerkhoven, 205 USPQ 1069, 1071 (CCPA 1980).

However, the CCPA disagreed, finding that Kerkhoven’s method of making mixed active detergents was not obvious in view of the cited prior art concluding that mere knowledge that multiple spray-drying nozzles could be used in making detergents was not enough to suggest that multiple spray-drying nozzles could be used to make mixed active detergents with good flow characteristics. Kerkhoven at 1073.

[A]ppellant solves [the problem of making a mixed active detergent with good flow characteristics] by utilizing the technique of simultaneously spray drying through separate nozzle systems in one spray-drying tower one detergent slurry having an active detergent content that is primarily if not exclusively anionic and another detergent slurry that is primarily if not exclusively nonionic. Although

simultaneous spray-drying of multiple slurries did not originate with appellant, on this record he appears to be the first to utilize this technique with slurries having different active detergent contents, one being primarily if not exclusively anionic in nature and the other being primarily if not exclusively nonionic in nature, in order to improve the flow characteristics of the final mixed-active product.... Mere knowledge that simultaneous spray-drying multiple slurries was a useful technique in the production of multi-colored detergents would not have suggested anything about the effect of simultaneous spray-drying slurries having different active detergent contents.... Kerkoven, 205 USPQ at 1073.

The problem that Applicants face is making an oil that contains water-soluble particulate flavor enhancers, wherein the water-soluble particulate flavor enhancers remain dispersed in the oil. Stoltz (U.S. Pat. No. 5,650,185) teaches an oil that contains an oil-soluble flavorant. Oil soluble flavorants, as taught in Stoltz, dissolve in the oil, they are not dispersed in the oil--settling is not a problem for Stoltz. In the Office action, Examiner points to column 10, lines 35-56 in Stoltz. However, column 10, lines 35-56 of Stoltz clearly teach the addition of an oil-based flavorant to an oil. The "flavored concentrate" in the table on line 43 of column 10 is the flavored concentrate described in the paragraph above. "In this formulation, the flavor concentrate comprises at least one oil-based liquid concentrate selected from the group consisting of beef, liver, cheese, tuna, shrimp, chicken and crab. Stoltz, column 10, lines 29-34 (emphasis added). Clearly, there is no teaching of using a water-soluble particulate flavor enhancer in Stoltz.

Patel (US Pat. No. 5,135,011) teaches the use of silicon dioxide as a thickener for an emulsion, wherein the silicon dioxide is added to the emulsion prior to drying, to act as a stabilizer for the emulsion as it is preferably spray dried. See Patel, column 2, lines 5 - 10, and column 3, line 48 - column 4, line 12. Patel does not teach or suggest the use of silicon dioxide to form a matrix in an oil. Furthermore, Patel teaches adding the silicon dioxide as a thickener, homogenizing, and then spray-drying. Patel's problem of stabilizing an emulsion just prior to spray-drying and Applicants' problem of delivering water-soluble particulate flavor enhancers *via* higher temperature operations, such as grilling, or frying are quite remote. Mere knowledge that silicon dioxide can be used to stabilize an emulsion just prior to spray-drying does not suggest using silicon dioxide to uniformly disperse a water-soluble particulate flavor enhancer in

an oil. Moreover, the use of silicon dioxide to thicken a gum base just prior to drying does not suggest the use of silicon dioxide to form a matrix to disperse a water-soluble particulate in oil.

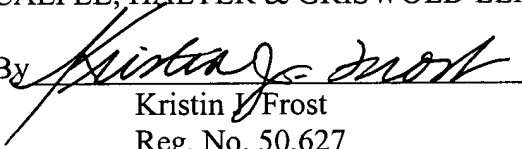
The combination of dissolving oil based flavorants in oil of Stoltz, stabilizing a gum base emulsion just prior to spray drying in Patel, and the existence of flavor enhancers taught in Fennema does not teach or suggest Applicants' claimed invention. The combination of these references does not teach an answer to Applicants' problem of dispersing a water-insoluble flavor enhancer in oil. Applicants respectfully submit that claims 1-9 and 12-14 are patentable over the prior art cited.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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